



## Neonatal Tetanus Cases

Morbidity Week 10 : January 1 - March 12, 2016

Epidemiology Bureau  
Public Health Surveillance Division

### Introduction

Neonatal tetanus (NT) is an acute, often fatal disease characterized by generalized, increased rigidity and convulsive spasms of skeletal muscles caused by the spore-forming bacterium *Clostridium tetani*.

Neonatal tetanus is not transmitted from person to person. The disease is acquired when dirt-containing tetanus spores enter open wounds (injections, cutting the umbilical cord) or breaks in the skin.

The incubation period is 3 to 21 days, with an average of 6 days. It is particularly common in rural areas where deliveries are done at home without adequate sterile procedures. Unclean cord care practices during delivery for neonates and lack of tetanus antibody protection from inadequately immunized mothers are the risk factors for the disease.

### Criteria for NT Elimination

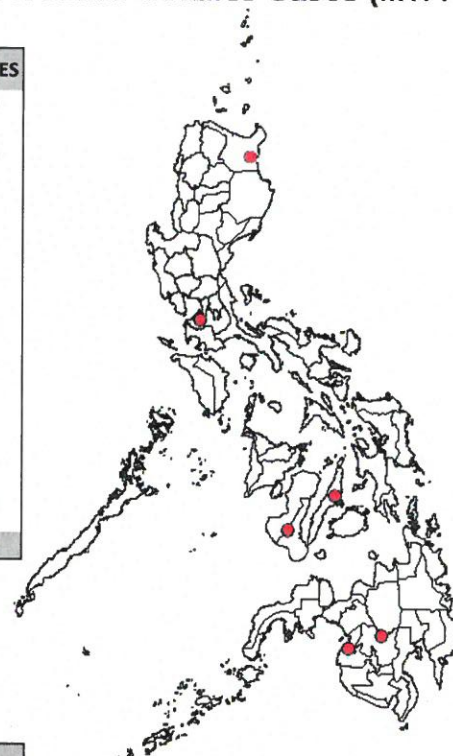
- NT Rate of **<1/1000** live births
- Quality NT Surveillance (*early detection, prompt notification, timely reporting and investigation, at least 80% of Disease Reporting Units (DRUs) are reporting including zero case reporting*)
- **≥80%** Child Protected After Birth (CPAB)
- **≥80%** Clean delivery
- **≥80%** Facility-based delivery

### Trend in the Philippines

There are **6** clinically confirmed neonatal tetanus cases reported nationwide from January 1 to March 12, 2016. This is **65%** lower compared to the same time period last year (**17**). Of these cases, there were **4** deaths (**CFR=66.67**).

### Neonatal Tetanus Cases (MW10)

REGION	CASES
I	= 0
II	= 1
III	= 0
IVA	= 1
IVB	= 0
V	= 0
VI	= 0
VII	= 2
VIII	= 0
IX	= 0
X	= 0
XI	= 0
XII	= 1
ARMM	= 1
CAR	= 0
CRG	= 0
NCR	= 0
PHL	= 6



Legend	Confirmed
1 dot	= 1 case

### Geographic Distribution

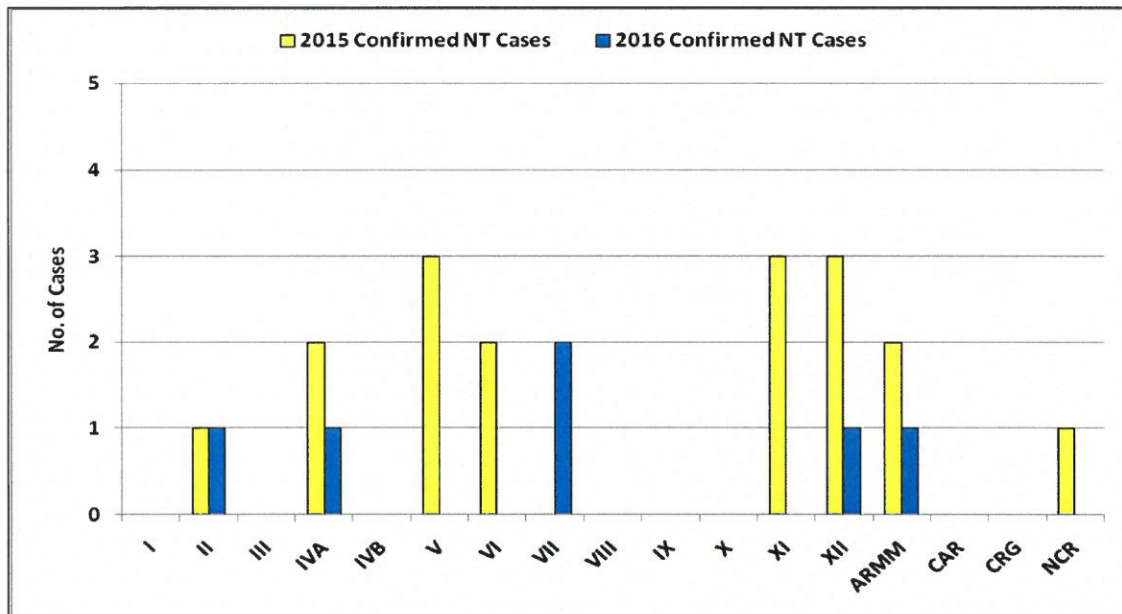
From January 1 to March 12, 2016, **six** clinically confirmed NT cases were reported from **Regions II, IV-A, VII, XII and ARMM**. (Fig. 1)

### Profile of Cases

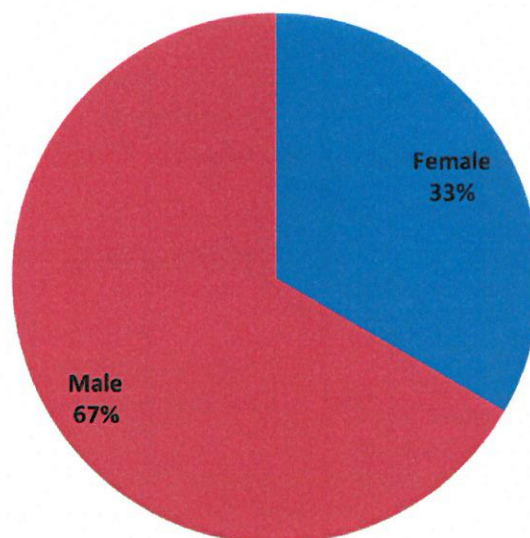
Majority of the clinically confirmed neonatal tetanus cases were **male** (67%). The age range of NT cases is between **3 to 8** days old. (Fig. 2)



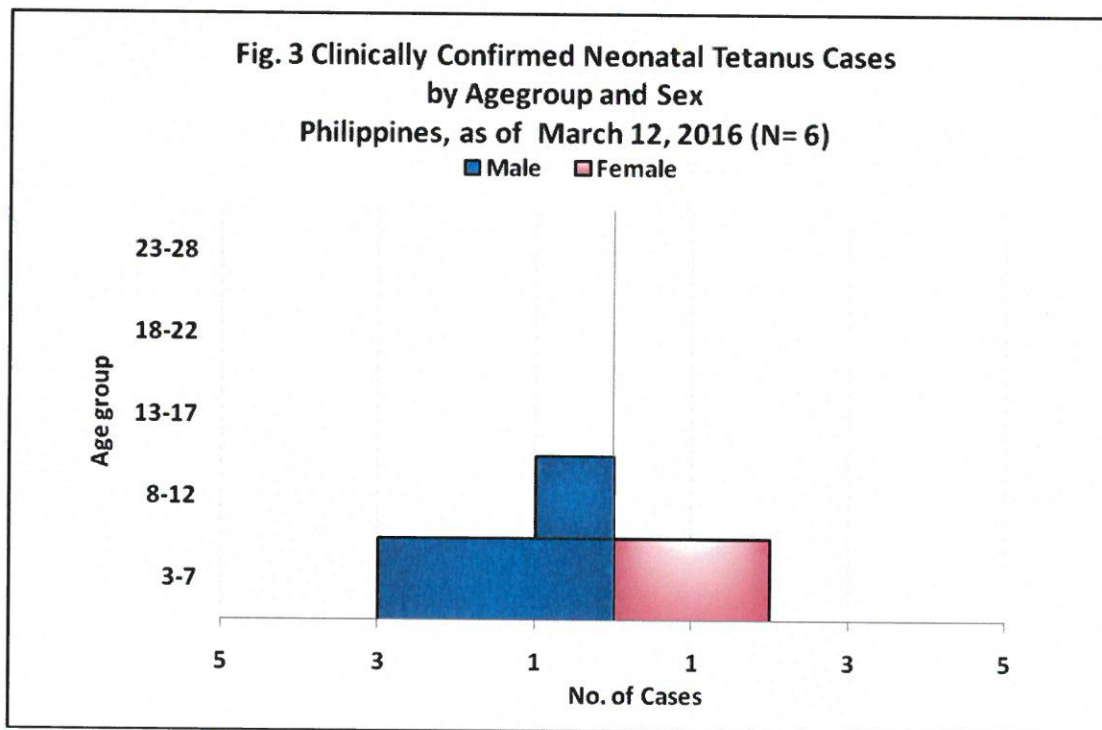
**Fig. 1 Clinically Confirmed Neonatal Tetanus Cases by Region  
Philippines, January 1 - March 12, 2016 (N=6)**



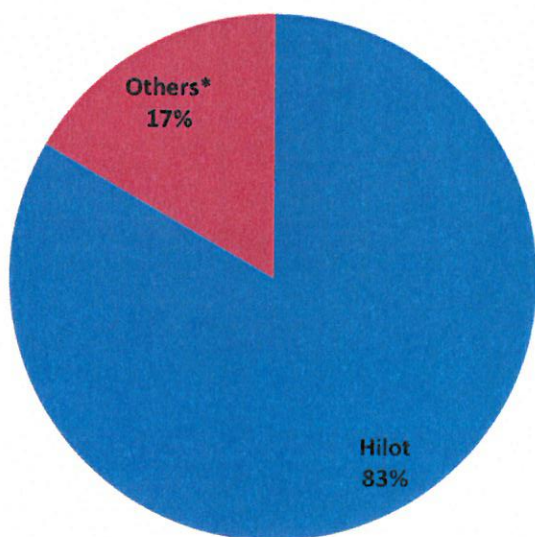
**Fig.2 Clinically Confirmed Neonatal Tetanus Cases by Sex  
Philippines, as of March 12, 2016 (N= 6)**





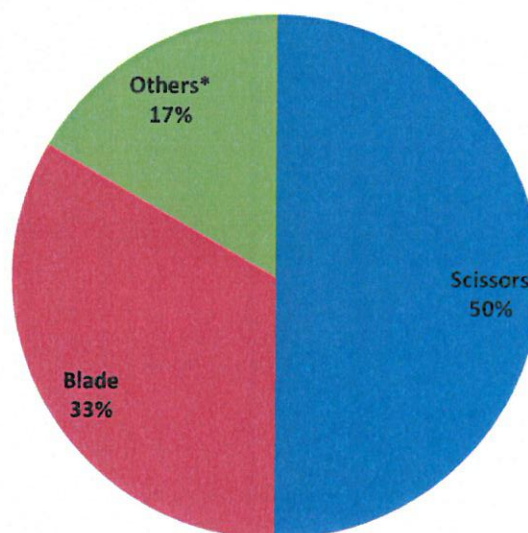


**Fig. 4 Delivery Attendants of Clinically Confirmed Neonatal Tetanus Cases (N=6) Philippines 2016 (As of MW 10)**



\*self-delivery

**Fig. 5 Cord Cutting Tool Used in Clinically Confirmed Neonatal Tetanus Cases (N=6) Philippines 2016 (As of MW 10)**



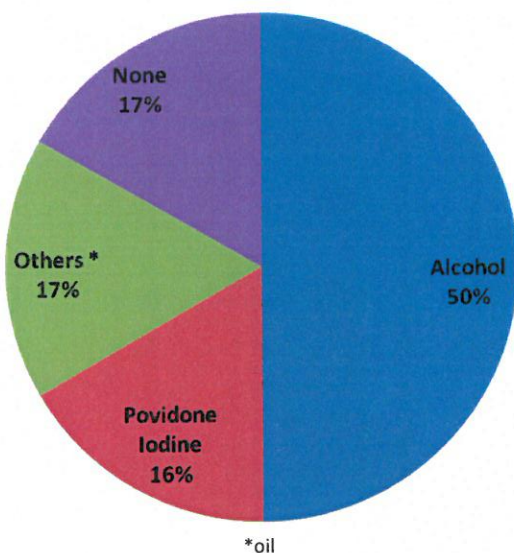
\*thread



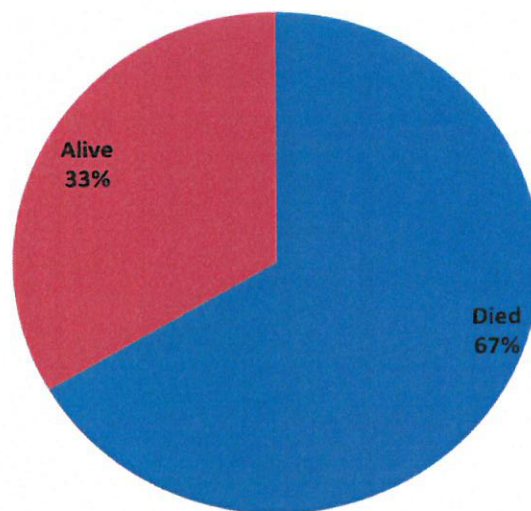
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**Fig. 6 Stump Treatment Used Among Clinically Confirmed Neonatal Tetanus Cases (N=6) Philippines 2016 (As of MW 10)**



**Fig. 7 Outcome of Clinically Confirmed Neonatal Tetanus Cases (N=6) Philippines 2016 (As of MW 10)**



**Confirmed Neonatal Tetanus Cases & Rate by Province Philippines, January 1 - March 12, 2016 (N=6)**

Fig. 8.1

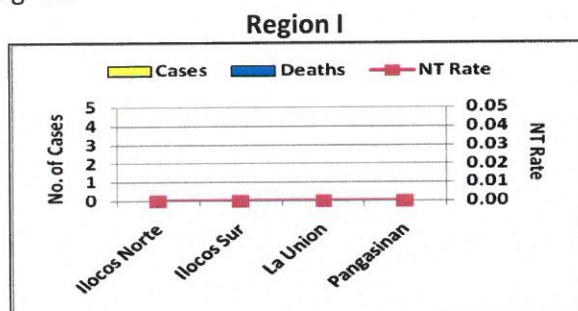


Fig. 8.2

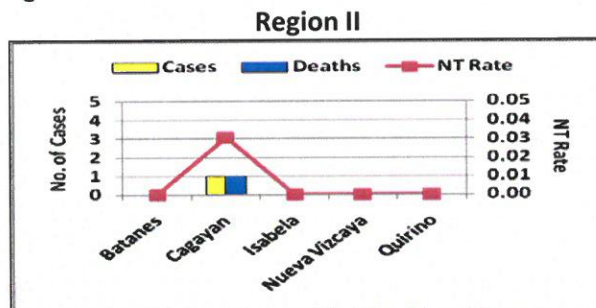


Fig. 8.3

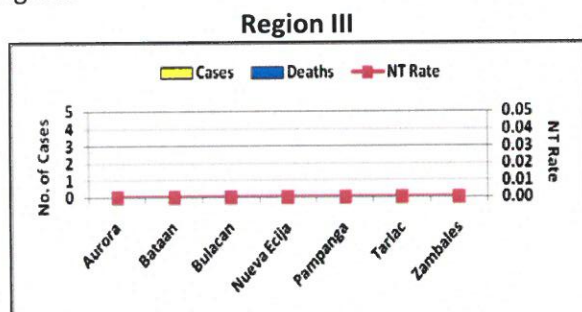
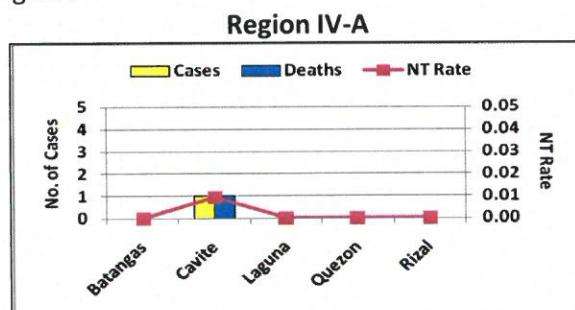


Fig. 8.4







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Fig. 8.5

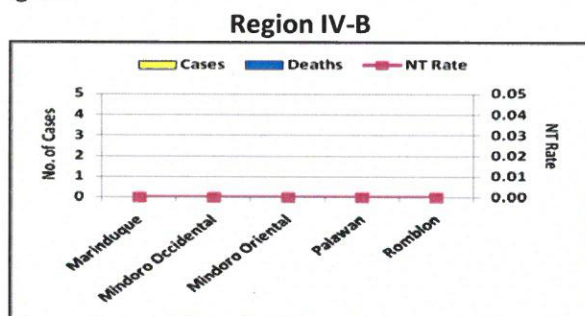


Fig. 8.6

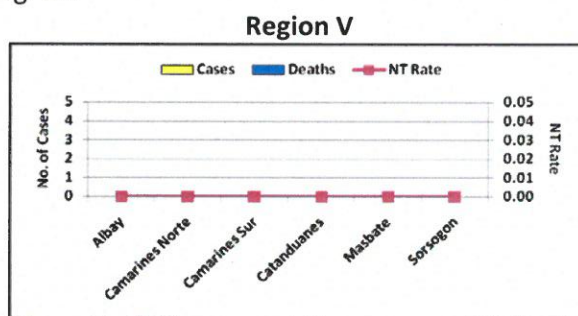


Fig. 8.7

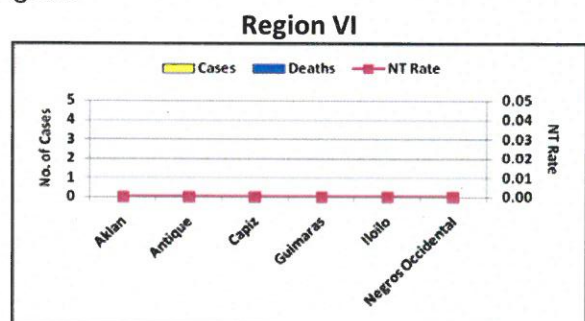


Fig. 8.8

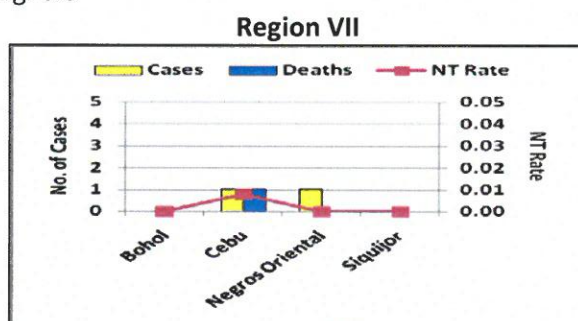


Fig. 8.9

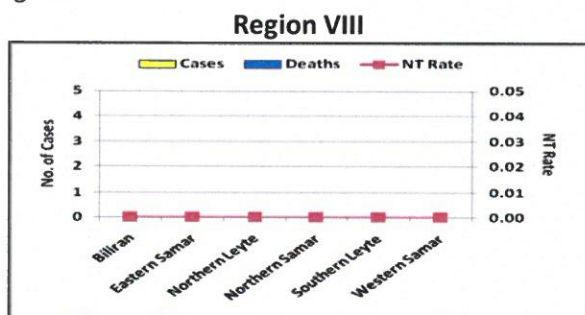


Fig. 8.10

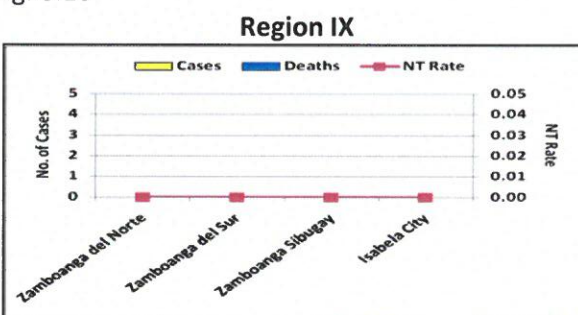


Fig. 8.11

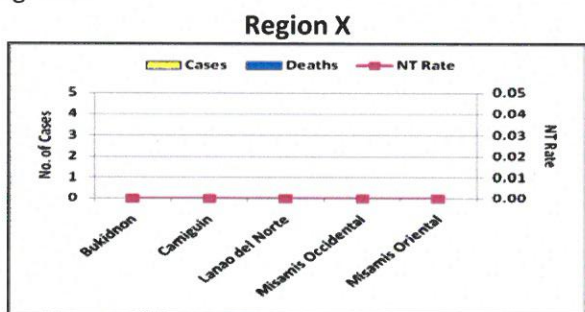
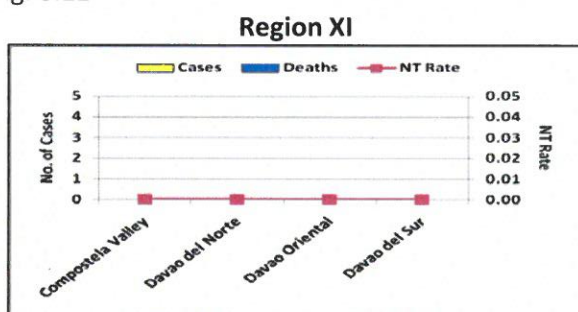


Fig. 8.12





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Fig. 8.13

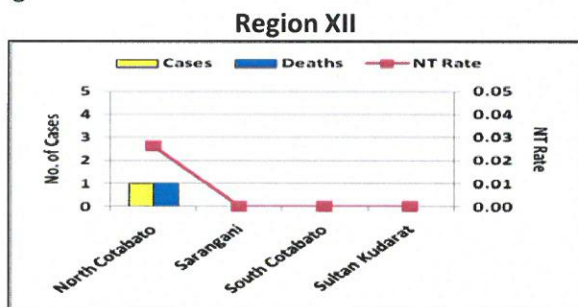


Fig. 8.14

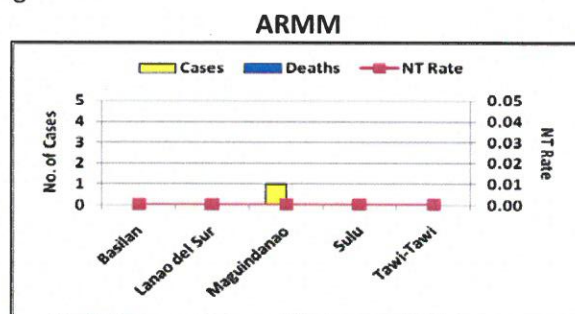


Fig. 8.15

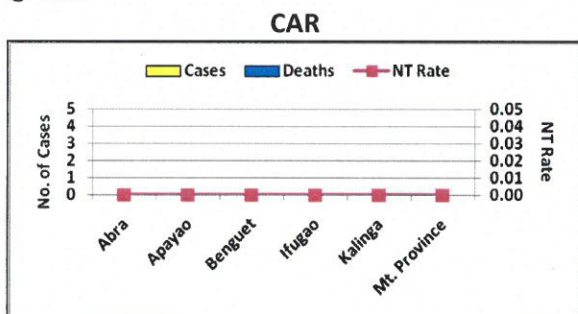


Fig. 8.16

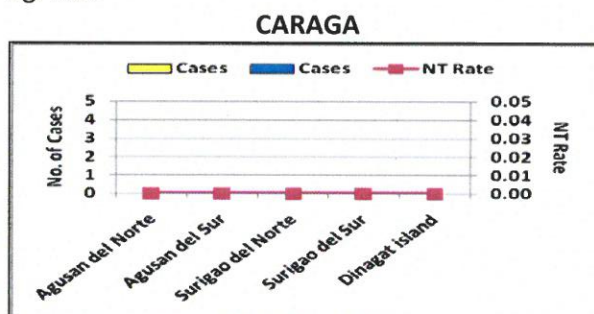
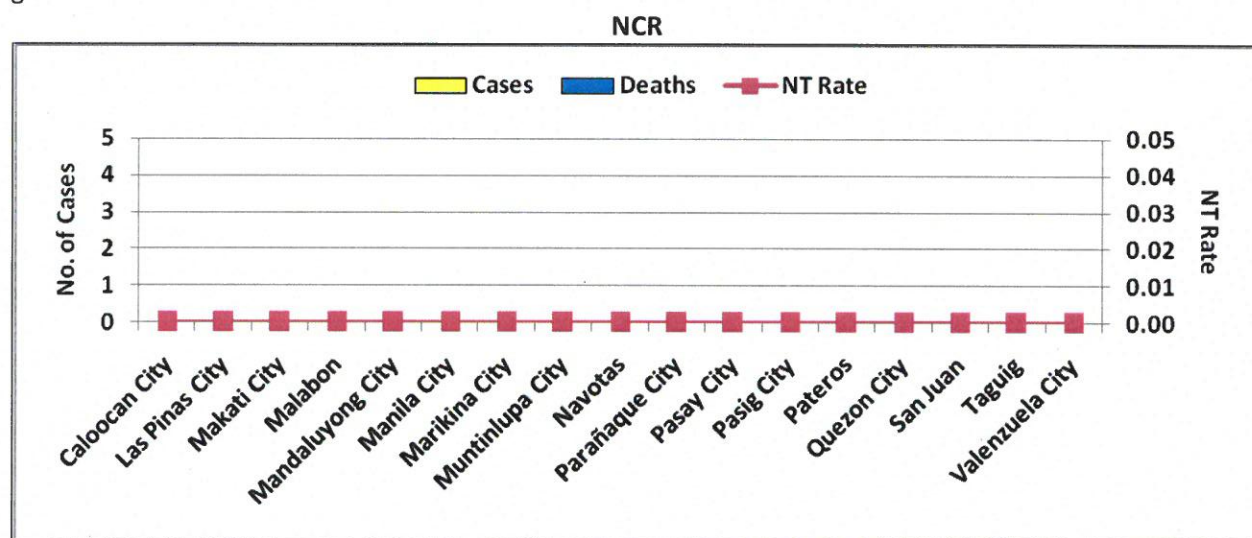


Fig. 8.17







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**Table 1 Clinically Confirmed Neonatal Tetanus Case Fatality Rate by Region  
 Philippines, January 1 - March 12, 2016**

Region	Cases				Deaths			
	2016	2015	% Change	NT Rate	2016	CFR	2015	CFR
I	0	0	0.00	0.00	0	0.00	0	0.00
II	1	1	0.00	0.01	1	100.00	1	100.00
III	0	0	0.00	0.00	0	0.00	0	0.00
IVA	1	2	-50.00	0.00	1	100.00	1	50.00
IVB	0	0	0.00	0.00	0	0.00	0	0.00
V	0	3	-100.00	0.00	0	0.00	2	66.67
VI	0	2	-100.00	0.00	0	0.00	2	100.00
VII	2	0	-	0.01	1	50.00	0	0.00
VIII	0	0	0.00	0.00	0	0.00	0	0.00
IX	0	0	0.00	0.00	0	0.00	0	0.00
X	0	0	0.00	0.00	0	0.00	0	0.00
XI	0	3	-100.00	0.00	0	0.00	1	33.33
XII	1	3	-66.67	0.01	1	100.00	2	66.67
ARMM	1	2	-50.00	0.01	0	0.00	1	50.00
CAR	0	0	0.00	0.00	0	0.00	0	0.00
CRG	0	0	0.00	0.00	0	0.00	0	0.00
NCR	0	1	-100.00	0.00	0	0.00	1	100.00
<b>PHL</b>	<b>6</b>	<b>17</b>	<b>-64.71</b>	<b>0.00</b>	<b>4</b>	<b>66.67</b>	<b>11</b>	<b>64.71</b>

## Case Definition

### • Clinically Confirmed Neonatal Tetanus

- Any neonate ( ≤ 28 days of life) that sucks and cries normally during the first 2 days of life, and becomes ill between 3 to 28 days of age and develops both an inability to suck and diffuse muscle rigidity (stiffness) and spasms (jerking of the muscles), which may include trismus, clenched fists or feet, continuously pursed lips, and/or curved back (opisthotonus);

OR

- A neonate between 3 to 28 days of life, diagnosed as a case of tetanus by a physician



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### How can a newborn get it?

- Unhygienic cutting of umbilical cord
- Improper handling of cord stump


### How can tetanus be prevented?

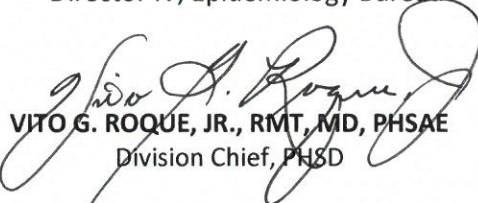
- Women of child-bearing age must be immunized by tetanus toxoid
- Clean delivery and cord clumping/cutting must be practiced
- Infants must be immunized with 3 doses of DPT


### How can tetanus be treated?

- antibiotics & antitoxin drugs,
- as well as sedatives for muscle spasms

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